Dr. Jyothula Suresh Kumar

M. Tech., Ph. D.

Senior Professor & Director, University Alumni Affairs & Dy. Director ,University Industry Interaction Center, JNTUH

ISTE

Mechanical Engineering

Areas of Interest:

Composite Structures, Finite Element Methods, Finite Element Analysis, Finite Element and Bondary Element Methods, Operations Research, Optimization Techniques, Design of Machine Members, Mechanical Vibrations, Adv. Mechanics of Machinery, Functionally Graded Materials, Theory Elasticity and Plasticity

Dr J. Suresh Kumar working as Senior Professor of Mechanical Engineering, Director â€“ University Alumni Affairs and Dy. Director(i/c) - University Industry Interaction Centre, JNT University Hyderabad. He has over 27 Years of experience in the fields of Academic Research and Technological Education. He has a multi-disciplinary approach due to varied roles taken up, including but not limited to teaching, research, and administration. He has attended and organized several International/National Conferences, Faculty Development Programs, Short Term Training Programs and workshops / Finishing Schools for the Faculty and students to provide hands on experience and bridge the gap between academics and industry. He served and held several Academic and Administrative positions including Dy. Warden (JNTU CEK), Officer In-charge of Exams (JNTU CEK), Officer in charge of SC/ST Book Bank (JNTU CEK), Addl. Controller of Exams (JNTU), NSS Program Officer (JNTUH UCEH), Training and Placement Officer (JNTUH UCEH), TEQIP â€“ II Coordinator for Industry Institute Interaction Cell (IIIC) (JNTUH UCEH), TEQIP â€“ II Coordinator for Monitoring and Evaluation Unit (M & E) (JNTUH UCEH), TEQIP â€“ II Coordinator for Finishing Schools (JNTUH UCEH), TEQIP â€“ II Students Coordinator(JNTUH UCEH), Head - Department of Mechanical Engineering (JNTUH UCEH). He is the recipient of 04 International/ National Awards and State Merit Scholarships. He has guided 13Ph.D theses, and 150 M.Tech projects. He has published 130 research papers at International/National Journals/Conferences including, Springer, Elsevier, Taylor & Francis, ASME. He has 3 patents in the field of Medical and Construction Robots and 1 utility patent on Fabrication of polymer based Nano Composite Roof Sheets. He has served as a Coordinator for Forest Department Recruitment Tests â€“ 2014 (FDRT â€“ 2014). He is the Design consultant for Trailers used for Heavy duty applications (Transportation Department), Finite Element Analysis and Design of air filter structures for American Air Filters Company through Tech Mahindra Pvt. Ltd., India and co-investigator for a design of Heat Exchanger inter cooler pertaining to DRDO (Ministry of Defence Project). He has authored 5 books including Springerâ€™s Engineering Mechanics (Staticâ€™s & Dynamics) B.S. publications, Design of Machine Element - I, New Age International Publications, ISBN No.: 978-81-224-3046-2, 2015, Design of Machine Element - II, New Age International Publications, ISBN No.: 978-81-224-2838-4, 2015, Biomaterial Applications Macro to Nano scalesâ€•, Chapter 6: An Experimental Observation of Disparity in Mechanical Properties of Turmeric Fiber Reinforced Polyester Composites, Apple Academic Press, CRC Press, Taylor & Francis Group, ISBN: 9781771880275, September 17, 2014 and Biomass and Bioenergy: Processing and Properties: Chapter 8: Indian Date Leaf FRP Composites: Mechanical and Dielectric Properties, pp. 125-140, Springer International Publishing, September 2014. He is the reviewer for Journal of Engineering and Natural Sciences.

Specialized:Â Machine Design, Engineering Design, Composite Structures, Nano-composites, Mech. Vibrations, Finite Element Methods, Finite Element Analysis, Advanced Finite Element and Boundary Element Methods, Advanced Optimization Techniques, Advanced Mechanics of Machinery, Engineering Mechanics, Experimental Stress Analysis.Â

- **Educational & Professional**

- **Academic Qualifications**
  - Ph.D. in Composite Structures, JNT University with First (1999-2005)
- M.Tech in Machine Design, JNT University with First (1993-1995)
- B.Tech in Mechanical Engineering, Nagarjuna with First (1988-1992)

- **Patents**
- Dr.J.Sures, *Chest Compression Device for First aid* ,Government of India Controller General of Patents, Design and Trade Marks, Govt. of India, 2015
- Dr. J.Sure, *Chest Compression Device for Medical First Aid* ,Controller General of Patents, Design and Trade Marks, Govt. of India, 2014

- **Books**
- Dr. J.Suresh Kumar, *Design of Machine Elements - II*, New Age Internatinal Publishers, 978-81-224-2838-4, 2015
- Dr. J.Suresh Kumar, *Design of Machine Elements - I*, New Age Internatinal Publishers, 978-81-224-3046-2, 2015
- , *Singers Engineering Mechanics*, BS Publicattions, ISBN 2010, 2010
- , *Singer's Engineering Mechanics*, BS Publicattions, ISBN 2010, 2010
- , *Singer's Engineering Mechanics*, BS Publicattions, ISBN 2010, 2010

- **Publications**

- **International Journals**
- Dr J.Suresh Kumar, *Free Vibration Analysis of Viscoelastic Sandwich Beam using Euler Bernoulli Theory*, International Journal of Engineering Research & Technology (IJERT), ISBN No.ISSN: 2278-0181, Vol No.5, Issue No.6, pp.566-570, http://www.ijert.org, JUNE , 2016
- Dr J.Suresh Kumar, *Free Vibration Analysis of various Viscoelastic Sandwich Beams*, Indian Journal of Science and Technology,, ISBN No.0974-5645, Vol No.9, Issue No.10.17485/ijst/2016/v9iS1/98598,, pp.1-8, www.indjst.org, December , 2016
- Dr J.Suresh Kumar, *Free Vibration Analysis of Magneto-Rheological Smart Sandwich Beam: Experimental Study*, International Conference on Emerging Trends in Mechanical Engineering, September, 2016
- *Transient Analysis of Smart Material Plates Using Higher Order Theory*, ARPN Journal of Engineering and Applied Sciences, Vol No.10, Issue No.01, pp.128-133, January, 2015
- Dr. J.Suresh Kumar, *Buckling Analysis of Smart Material Plates Using Higher Order Theory*, IOSR Journal of Mechanical and Civil Engineering, ISBN No.2278 -1684, Vol No.11, Issue No.5, pp.55-60, IOSRJMCE, September - October, 2014
- Dr. J.Suresh Kumar, *Analysis and Optimization of Composite Sandwich Structures using Optistruct*, Journal of Engineering Research & Technology, Vol No.3, Issue No.10, pp.699-704, September - October, 2014
- Dr. J.Suresh Kumar, *Analysis of Smart Antisymmetric Composite Laminated Plates using HSDT*, International Journal of Engineering Research & Technology, Vol No.3, Issue No.11, pp.1352-1356, November, 2014
- Dr J.Suresh Kumar, *Analysis of Sandwich Structures using Euler Bernoulli Theory*, International Conference on Emerging Technologies In Mechanical Sciences, ISBN No.978-93- 83038-28- 2., pp.247-252, December, 2014
- Dr J.Suresh Kumar, *Dynamic Analysis of Structures using Constrained Layer Damping Technique*, International Conference on Emerging Technologies In Mechanical Sciences, ISBN No.978-93- 83038-28- 2, pp.189-191, December, 2014
- Dr J.Suresh Kumar, *Mechanical chest compression with a medical parallel manipulator for cardiopulmonary resuscitation*, THE INTERNATIONAL JOURNAL OF MEDICAL ROBOTICS AND COMPUTER ASSISTED SURGERY, Vol No.11, pp.448-457, October, 2014
- Dr J.Suresh Kumar, *Mechanical chest compression with a medical parallel manipulator for cardiopulmonary resuscitation*, THE INTERNATIONAL JOURNAL OF MEDICAL ROBOTICS AND COMPUTER ASSISTED SURGERY, Vol No.11, Issue No.10.1002/rcs.1628, pp.448-457, October, 2014
- Dr J.Suresh Kumar, *IDENTIFICATION OF MEASUREMENT ITEMS OF DESIGN REQUIREMENTS FOR LEAN AND AGILE SUPPLY CHAIN- CONFIRMATORY FACTOR ANALYSIS*, International Journal for Quality Research 7(2), ISBN No.1800-6450, Vol No.7(2), pp.255-264, January, 2013
- Dr J.Suresh Kumar, *PRIORITIZATION OF STRATEGIC DESIGN REQUIREMENTS FOR LEAN & AGILE SUPPLY CHAINS*, International Journal of Advanced Research in Engineering and Applied Sciences, ISBN No.2278-6252, Vol No.Vol. 2, Issue No.1, pp.62-82, January, 2013
- Dr J.Suresh Kumar, *Evaluation of performance metrics of leagile supply chain through fuzzy MCDM*, Decision Science Letters, Vol No.2, pp.211-222, 2013
- Dr J.Suresh Kumar, *PRIORITIZATION OF PERFORMANCE METRICS FOR LEAN & AGILE SUPPLY CHAINS*, International Journal of Advancements in Research & Technology, ISBN No.ISSN 2278-7763, Vol No.2, Issue No.8, pp.188-194, August, 2013
- Dr J.Suresh Kumar, *Canonical Correlation between Strategic Design Requirements and Performance Measures of Lean and Agile Supply Chains - A Case Study in Small and Medium Enterprises*, International Journal of Scientific & Engineering Research, ISBN No.ISSN 2229-5518, Vol No.4, Issue No.9, pp.1537-1545, September, 2013

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International Conference

- Dr J.Suresh Kumar, *CHEST COMPRESSION WITH A LINEAR PARALLEL MANIPULATOR FOR CARDIOPULMONARY RESUSCITATION*, International Conference on Design, Analysis, Manufacturing and Simulation (ICDAMS-2016), pp.871-877, April, 2016
- Dr J.Suresh Kumar, *Fracture Analysis of SLJ in crossply and Angle ply FRP Composite Laminates*, Laminates,First International conference on mechanics of compositesStony Brook University,New, June 9-12, 2014
- Dr J.Suresh Kumar, *Vibration Analysis of Sub Marine Structures*, International Conference on Multi Body Dynamics, pp.200-203, 2011
- Dr J.Suresh Kumar, *Mixed mode delamination propagation analysis of adhesively bonded Single Lap Joint With [0/?/?/0] Composite Adherends*, International Conference on Futuristic Trends in Materials & Energy Systems, pp.28-33, December 29& 30, 2011
- Dr J.Suresh Kumar, *Dynamic Analysis of Structures using Constrained Layer Damping Technique*

Contact :

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